

High Temperature Hazardous Location Control

Exlar's EXP-24 Positioner has been designed for use specifically with Exlar's EL100 Actuator and also can be used to drive most three phase linear actuators and rotary motors.

The EXP-24 positioner offers a fully capable 24VDC motion controller and brushless servo motor amplifier that conforms to CSA and the EU ATEX Directive 94/9/EC for explosion-proof applications.

Able to power most resolver feedback brushless motors, the EXP-24 is one of the only servo drive solutions on the market capable of use in a hazardous environment.

Ideal for process control applications, the EXP-24 provides functionality to position a valve or damper by following an analog input signal.

Four additional motion modes are also available to accommodate an endless variety of motion applications.

Standard Features

- CSA Class I Division 1
- ATEX (LCIE 09 ATEX 3057 X)
- User friendly configuration software
- Convenient conduit entry ports
- Easily accessible internal terminal strips

Applications

- Valve control
- Damper control
- Engine test stands
- Fuel skids
- Oil platforms
- Paint booths
- Shipboard fuel management



Exlar EXP-24 Positioner



II 2 G
LCIE 09 ATEX 3057 X
Ex d II B T5
IP66



163694
Class I Division 1
Group B, C, D, T5



| EXP-24 Specifications | |
|-----------------------|--|
| Input Voltage | 18 to 32 VDC |
| Input Current, DC | 30 A Peak, 25 A Continuous |
| Output Current, 3Ø | 30 A (21 ARMS) Peak, 25 A (18 ARMS) Continuous |
| Digital Inputs | 2 - Isolated, 18 to 32 VDC |
| Digital Outputs | 2 - Isolated, 18 to 32 VDC, 250mA Continuous |
| Analog Input | 1 - Non-isolated, 4 to 20mA, 500 Ω Input Impedance |
| Analog Output | 2 - Isolated, 4 to 20mA, 200 Ω to 500 Ω Driving Capability |
| Serial Interface | Isolated RS-485, Modbus Protocol, Max. Baud Rate 38.4k |
| Commutation | Sinusoidal, Space Vector PWM, 10 kHz |
| Position Feedback | Resolver |
| Environmental | -29 to 82 °C Operating Temperature Range |
| Enclosure | IP66, NEMA Type 4 |
| N.A. Certifications | CSA Class I Division 1 Groups B, C, D, T5 |
| E.U. Compliance | 94/9/EC Potentially Explosive Atmospheres (ATEX) Ex d II B, T5 |
| EMC | Immunity: EN 61000-6-2: 2005, Emission: EN 61000-6-4: 2007 |
| Approx. Weight | 33 lbs (15 kg) |

| EXP-24 Ordering Guide | |
|---|--|
| AAA-BB-CC-D-EEE-FFFFF | |
| AAA = Controller Type | |
| EXP = Explosion Proof Positioner for use in Hazardous Locations | |
| BB = Nominal Input Voltage | |
| 24 = 24 VDC | |
| CC = Nominal Output Current | |
| 20 = 20 ARMS | |
| D = Vent and Drain Selection | |
| N = None | |
| D = Drain Only | |
| V = Vent Only | |
| B = Both (Drain and Vent) | |
| EEE = Customer Code | |
| XXX = 3 Digit Customer Identifier | |
| FFFFF = Part Number - 5 Digit Part Number Unique to Model Configuration | |

Set-up and Control Software

This Windows™ based software provides you with a simple way to select all aspects of configuration and control required to set up and operate the EXP-24 Positioner. Easy to use tabbed pages provide access to input all of the parameters necessary for the configuration of either your valve control or general motion application.

The software uses a hierarchical arrangement of Application Files and Drive Files. The Application Files determine what is displayed and how it is displayed on the screen. The Drive Files contain the information about the parameters that are displayed, such as name, min and max value, default value and most importantly the actual value as saved or uploaded.

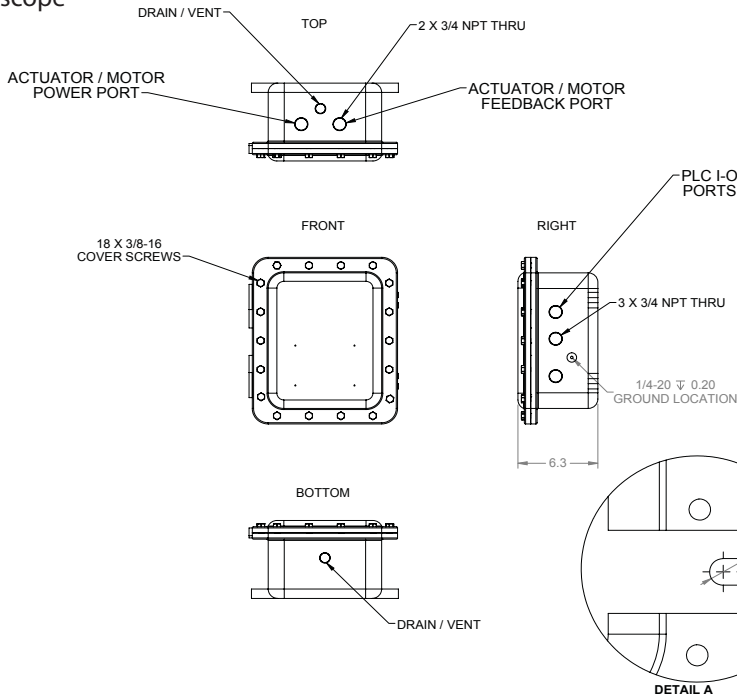
Valve Control

Set Up

- Stroke
- Stroke Speed
- Valve Seat Cut-off
- Current Limit
- Homing

Diagnostics

- Real Time Monitoring
- Oscilloscope



General Motion Control Tuning/Control & Set Up

- Stroke
- Stroke Speed
- Current Limit
- Acceleration
- Power on Delay
- Tuning Parameters

I/O

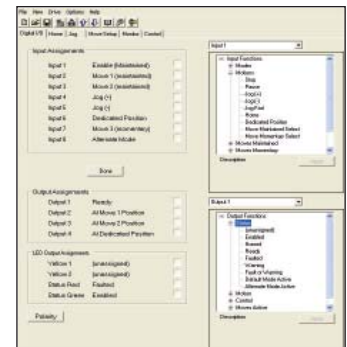
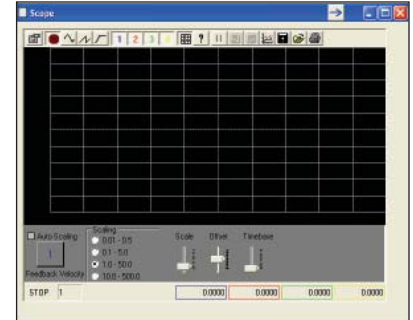
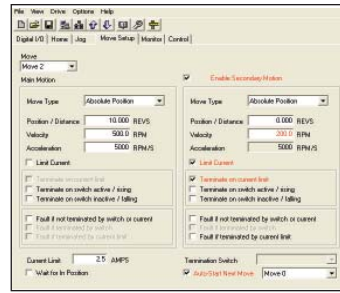
- Digital I/O Configuration
- Analog Signal Configuration
- Input and Output Function Control
- Analog Calibration

Motion Setup

- Move Distance
- Jogging
- Homing
- Operator Control Panel

Diagnostics

- Real time monitoring
- Following error
- Position error
- Input and output status
- Communication diagnostics
- Multi-channel oscilloscope
- Loss of signal monitoring



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